

# D

## Dietary Intake Data from the Third National Health and Nutrition Examination Survey (NHANES III), 1988–1994

**TABLE D-1** Mean and Percentiles for Usual Daily Intake of Added Sugars (tsp), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	<i>n</i>	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–3 y	2,174	13.2	0.4	1.8	3.4
Both sexes, 4–8 y	3,448	19.3	9.3	11.7	13.1
Standard error		0.4	2.2	1.9	1.6
M, 9–13 y	1,219	28.6	16.8	19.7	21.4
Standard error		0.9	0.6	0.7	0.7
M, 14–18 y	909	36.9	15.5	20.5	23.4
Standard error		1.4	13.8	11.1	9.3
M, 19–30 y	1,902	31.5	10.7	15.3	18.1
Standard error		0.8	2.6	2.4	2.1
M, 31–50 y	2,533	25.4	3.5	6.9	9.5
Standard error		0.7	0.6	0.7	0.8
M, 51–70 y	1,942	18.0	3.1	5.5	7.2
Standard error		0.6	0.6	0.6	0.6
M, 71+ y	1,255	14.3	3.9	5.8	7.1
Standard error		0.5	0.8	0.8	0.8
F, 9–13 y	1,216	21.9	9.3	12.1	13.8
Standard error		0.7	1.7	1.5	1.3
F, 14–18 y	949	25.4	9.0	12.6	14.8
Standard error		1.2	5.5	4.8	4.2
F, 19–30 y	1,901	22.3	4.8	8.0	10.2
Standard error		0.7	1.4	1.6	1.4

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25th	50th	75th	90th	95th	99th
6.8	10.9	17.7	25.3	30.9	45.5
15.6	18.9	22.4	26.0	28.3	33.0
1.1	0.4	0.9	2.0	2.7	4.3
24.5	28.2	32.3	36.3	38.9	44.1
0.8	0.9	1.1	1.2	1.4	1.7
28.9	35.7	43.5	51.8	57.3	69.1
6.0	1.9	4.5	10.6	14.9	24.4
23.5	30.3	38.1	46.4	51.9	63.6
1.6	0.9	1.4	2.9	4.1	7.0
15.0	22.8	33.0	44.2	52.2	70.9
0.7	0.7	0.9	1.6	2.3	4.6
10.8	16.2	23.2	31.2	36.8	49.2
0.6	0.6	0.7	1.1	1.5	2.9
9.7	13.3	17.8	22.7	26.0	33.1
0.6	0.4	0.7	1.5	2.1	3.5
17.0	21.1	25.9	30.9	34.3	41.6
1.1	0.8	1.1	1.8	2.5	4.2
18.9	24.3	30.6	37.3	41.8	51.4
2.9	1.4	2.5	5.5	7.8	13.3
14.6	20.8	28.4	36.6	42.1	53.9
1.1	0.7	1.1	2.0	2.9	4.8

*continued*

**TABLE D-1** Continued

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
F, 31–50 y	2,939	17.3	2.6	4.9	6.6
Standard error		0.5	0.3	0.5	0.4
F, 51–70 y	2,065	12.8	2.5	4.2	5.3
Standard error		0.7	0.4	0.5	0.5
F, 71+ y	1,368	10.5	2.1	3.5	4.5
Standard error		0.3	0.3	0.3	0.3
Pregnant	346	21.0	5.5	8.6	10.6
Standard error		1.1	3.5	3.3	3.0
Lactating	99	19.7	12.0	14.0	15.1
Standard error		2.7	1.8	2.0	2.0
Pregnant/lactating	440	21.2	4.9	8.1	10.2
Standard error		1.0	3.6	3.5	3.2
All individuals	25,820	21.1	4.0	6.9	8.9
Standard error		0.3	0.2	0.3	0.3
All individuals (+P/L)	26,260	21.1	4.0	6.9	8.9
Standard error		0.3	0.3	0.3	0.3

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distribution for children 2–3 years of age is unadjusted. The mean and percentiles for this group were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Mean, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating status data or who responded “I don’t know” to questions on pregnancy and lactating status were excluded from all analyses. Females who

25th	50th	75th	90th	95th	99th
10.4	15.7	22.5	29.8	34.9	47.0
0.4	0.5	0.6	0.8	1.0	2.9
7.8	11.5	16.3	21.7	25.3	34.4
0.4	0.6	1.3	1.8	1.5	3.3
6.6	9.7	13.4	17.6	20.6	27.5
0.3	0.3	0.4	0.8	1.1	2.1
14.5	19.7	26.1	33.1	38.0	48.4
2.2	1.2	2.2	4.5	6.4	10.8
17.2	19.5	22.0	24.4	25.8	28.7
2.2	2.6	3.2	4.0	4.7	6.2
14.3	19.8	26.6	34.1	39.2	50.5
2.4	1.4	1.9	4.4	6.6	12.1
13.1	19.2	27.0	35.8	41.9	55.3
0.3	0.3	0.4	0.6	0.8	1.3
13.1	19.1	27.0	35.8	42.0	55.4
0.3	0.3	0.4	0.6	0.8	1.3

were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCES: U.S. Department of Health and Human Services, National Center for Health Statistics and National Cancer Institute's Pyramid Servings Database for NHANES III.

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-2** Mean and Percentiles for Usual Daily Intake of Alanine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	<i>n</i>	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.72	0.20	0.30	0.40
Both sexes, 7–12 mo	827	1.32	0.40	0.50	0.60
Both sexes, 1–3 y	3,309	2.19	0.50	0.90	1.10
Both sexes, 4–8 y	3,448	2.82	1.75	2.01	2.16
Standard error		0.04	0.60	0.47	0.39
M, 9–13 y	1,219	3.73	1.90	2.34	2.59
Standard error		0.08	0.24	0.20	0.17
M, 14–18 y	909	4.68	2.25	2.81	3.15
Standard error		0.13	0.70	0.59	0.51
M, 19–30 y	1,902	5.27	2.94	3.50	3.82
Standard error		0.13	0.11	0.14	0.15
M, 31–50 y	2,533	4.88	2.54	3.10	3.43
Standard error		0.09	0.26	0.24	0.22
M, 51–70 y	1,942	4.24	1.75	2.33	2.67
Standard error		0.08	0.12	0.11	0.10
M, 71+ y	1,255	3.49	1.51	1.97	2.24
Standard error		0.06	0.14	0.12	0.11
F, 9–13 y	1,216	2.99	2.04	2.29	2.43
Standard error		0.07	0.60	0.47	0.39
F, 14–18 y	949	2.91	0.96	1.40	1.67
Standard error		0.09	0.17	0.15	0.13
F, 19–30 y	1,901	3.16	1.63	1.99	2.20
Standard error		0.08	0.26	0.22	0.19
F, 31–50 y	2,939	3.23	1.78	2.14	2.34
Standard error		0.05	0.21	0.18	0.15
F, 51–70 y	2,065	2.92	1.37	1.74	1.95
Standard error		0.04	0.10	0.09	0.08
F, 71+ y	1,368	2.62	1.19	1.53	1.73
Standard error		0.05	0.14	0.12	0.10
Pregnant	346	3.76	2.18	2.57	2.79
Standard error		0.18	0.14	0.17	0.18
Lactating	99	4.40	3.07	3.43	3.63
Standard error		0.25	0.19	0.21	0.22
Pregnant/lactating	440	3.91	2.29	2.70	2.94
Standard error		0.15	0.12	0.13	0.13
All individuals	28,575	3.63	1.30	1.79	2.08
Standard error		0.04	0.05	0.05	0.04
All individuals (+P/L)	29,015	3.64	1.32	1.81	2.10
Standard error		0.04	0.05	0.05	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.50	0.60	0.80	1.20	1.40	2.10
0.80	1.20	1.70	2.10	2.60	3.40
1.50	2.00	2.70	3.40	3.90	5.10
2.44	2.78	3.15	3.52	3.75	4.23
0.24	0.06	0.20	0.44	0.59	0.92
3.05	3.63	4.29	5.00	5.48	6.52
0.12	0.09	0.13	0.23	0.32	0.62
3.77	4.56	5.45	6.35	6.94	8.15
0.34	0.15	0.30	0.65	0.90	1.46
4.42	5.17	6.00	6.84	7.38	8.49
0.14	0.12	0.13	0.15	0.16	0.23
4.03	4.77	5.61	6.47	7.05	8.30
0.19	0.10	0.17	0.28	0.36	0.61
3.29	4.06	4.98	6.04	6.80	8.51
0.09	0.08	0.10	0.16	0.22	0.40
2.73	3.34	4.08	4.91	5.50	6.84
0.09	0.07	0.07	0.14	0.21	0.39
2.67	2.97	3.28	3.59	3.78	4.16
0.24	0.08	0.21	0.44	0.60	0.93
2.16	2.78	3.51	4.30	4.86	6.05
0.10	0.09	0.14	0.25	0.34	0.59
2.59	3.09	3.66	4.21	4.57	5.37
0.14	0.08	0.15	0.27	0.36	0.63
2.71	3.17	3.68	4.19	4.53	5.25
0.11	0.06	0.08	0.16	0.23	0.41
2.35	2.84	3.40	3.99	4.39	5.23
0.06	0.05	0.06	0.10	0.14	0.24
2.09	2.54	3.06	3.61	3.98	4.77
0.08	0.05	0.07	0.15	0.22	0.40
3.20	3.70	4.25	4.80	5.16	5.87
0.16	0.18	0.31	0.40	0.41	0.35
3.97	4.38	4.80	5.20	5.45	5.93
0.25	0.27	0.28	0.29	0.30	0.34
3.36	3.87	4.42	4.95	5.28	5.95
0.14	0.16	0.17	0.18	0.19	0.20
2.65	3.42	4.37	5.44	6.20	7.94
0.04	0.04	0.04	0.06	0.09	0.16
2.66	3.44	4.38	5.44	6.19	7.88
0.04	0.04	0.05	0.07	0.11	0.19

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-3** Mean and Percentiles for Usual Daily Intake of Arginine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.87	0.20	0.40	0.40
Both sexes, 7–12 mo	827	1.53	0.40	0.60	0.70
Both sexes, 1–3 y	3,309	2.52	0.60	1.00	1.30
Both sexes, 4–8 y	3,448	3.25	2.17	2.43	2.58
Standard error		0.06	0.42	0.34	0.29
M, 9–13 y	1,219	4.34	2.32	2.80	3.08
Standard error		0.16	0.42	0.39	0.36
M, 14–18 y	909	5.33	2.77	3.38	3.74
Standard error		0.14	0.93	0.77	0.67
M, 19–30 y	1,902	6.04	3.36	4.00	4.38
Standard error		0.14	0.11	0.14	0.15
M, 31–50 y	2,533	5.61	2.70	3.40	3.80
Standard error		0.10	0.26	0.23	0.23
M, 51–70 y	1,942	4.88	1.91	2.58	2.98
Standard error		0.10	0.12	0.11	0.11
M, 71+ y	1,255	4.01	1.79	2.29	2.59
Standard error		0.07	0.15	0.13	0.12
F, 9–13 y	1,216	3.46	2.60	2.83	2.96
Standard error		0.08	1.13	0.87	0.71
F, 14–18 y	949	3.39	1.26	1.75	2.04
Standard error		0.10	0.22	0.18	0.16
F, 19–30 y	1,901	3.65	1.78	2.21	2.45
Standard error		0.11	0.24	0.20	0.18
F, 31–50 y	2,939	3.71	2.19	2.57	2.79
Standard error		0.05	0.25	0.21	0.18
F, 51–70 y	2,065	3.33	1.59	2.01	2.25
Standard error		0.05	0.11	0.09	0.08
F, 71+ y	1,368	2.97	1.45	1.81	2.02
Standard error		0.05	0.15	0.13	0.12
Pregnant	346	4.31	2.51	2.96	3.22
Standard error		0.21	0.33	0.44	0.43
Lactating	99	5.08	3.56	3.99	4.23
Standard error		0.27	0.27	0.30	0.30
Pregnant/lactating	440	4.48	2.64	3.12	3.39
Standard error		0.17	0.15	0.15	0.15
All individuals	28,575	4.17	1.51	2.07	2.40
Standard error		0.04	0.06	0.05	0.05
All individuals (+P/L)	29,015	4.18	1.54	2.09	2.42
Standard error		0.04	0.06	0.06	0.05

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.50	0.70	1.10	1.60	1.90	2.80
1.00	1.40	1.90	2.50	2.90	4.30
1.70	2.30	3.10	3.90	4.60	5.80
2.86	3.21	3.60	3.97	4.20	4.66
0.20	0.07	0.17	0.34	0.45	0.69
3.60	4.23	4.96	5.72	6.25	7.38
0.27	0.19	0.32	0.52	0.70	1.24
4.40	5.22	6.14	7.07	7.66	8.88
0.45	0.18	0.35	0.79	1.10	1.78
5.07	5.92	6.88	7.84	8.46	9.72
0.15	0.15	0.16	0.18	0.20	0.26
4.50	5.50	6.50	7.60	8.30	10.00
0.24	0.11	0.24	0.29	0.36	0.63
3.72	4.64	5.77	7.07	8.01	10.13
0.10	0.10	0.12	0.17	0.22	0.38
3.13	3.83	4.68	5.64	6.33	7.89
0.09	0.07	0.09	0.17	0.24	0.45
3.18	3.45	3.73	3.99	4.15	4.48
0.43	0.11	0.34	0.74	1.00	1.53
2.58	3.25	4.04	4.90	5.49	6.76
0.12	0.10	0.15	0.27	0.38	0.64
2.92	3.54	4.26	4.96	5.43	6.53
0.13	0.09	0.20	0.32	0.42	0.77
3.18	3.65	4.18	4.70	5.04	5.76
0.12	0.06	0.09	0.19	0.27	0.45
2.69	3.24	3.86	4.52	4.96	5.90
0.07	0.05	0.06	0.11	0.15	0.26
2.41	2.91	3.46	4.02	4.37	5.11
0.09	0.05	0.09	0.17	0.22	0.34
3.68	4.25	4.88	5.49	5.89	6.68
0.32	0.25	0.42	0.55	0.56	0.44
4.62	5.07	5.53	5.94	6.19	6.66
0.28	0.28	0.33	0.37	0.39	0.39
3.86	4.43	5.05	5.64	6.01	6.74
0.16	0.18	0.20	0.21	0.22	0.25
3.04	3.93	5.02	6.25	7.11	9.10
0.04	0.04	0.05	0.07	0.10	0.18
3.06	3.95	5.03	6.25	7.10	9.04
0.05	0.04	0.05	0.08	0.11	0.20

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-4** Mean and Percentiles for Usual Daily Intake of Aspartic Acid (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	1.61	0.50	0.70	0.90
Both sexes, 7–12 mo	827	2.69	0.80	1.10	1.40
Both sexes, 1–3 y	3,309	4.08	1.00	1.70	2.20
Both sexes, 4–8 y	3,448	5.15	3.40	3.84	4.10
Standard error		0.07	0.53	0.42	0.36
M, 9–13 y	1,219	6.76	3.50	4.30	4.80
Standard error		0.16	0.42	0.34	0.29
M, 14–18 y	909	8.34	4.50	5.40	6.00
Standard error		0.22	1.16	0.97	0.84
M, 19–30 y	1,902	9.31	5.30	6.30	6.80
Standard error		0.19	0.16	0.17	0.17
M, 31–50 y	2,533	8.67	4.20	5.20	5.90
Standard error		0.16	0.41	0.36	0.33
M, 51–70 y	1,942	7.58	3.20	4.20	4.80
Standard error		0.14	0.22	0.20	0.19
M, 71+ y	1,255	6.32	2.80	3.60	4.10
Standard error		0.10	0.25	0.21	0.18
F, 9–13 y	1,216	5.47	3.14	3.72	4.06
Standard error		0.13	0.09	0.09	0.09
F, 14–18 y	949	5.32	2.00	2.80	3.30
Standard error		0.15	0.28	0.23	0.20
F, 19–30 y	1,901	5.69	3.04	3.67	4.03
Standard error		0.14	0.46	0.37	0.32
F, 31–50 y	2,939	5.79	3.30	3.92	4.28
Standard error		0.08	0.37	0.30	0.26
F, 51–70 y	2,065	5.27	2.51	3.17	3.55
Standard error		0.07	0.14	0.13	0.12
F, 71+ y	1,368	4.75	2.13	2.77	3.14
Standard error		0.09	0.17	0.14	0.13
Pregnant	346	6.81	4.00	4.70	5.10
Standard error		0.28	0.39	0.39	0.35
Lactating	99	8.09	5.65	6.34	6.71
Standard error		0.45	0.52	0.56	0.55
Pregnant/lactating	440	7.12	4.23	4.97	5.40
Standard error		0.26	0.22	0.22	0.23
All individuals	28,575	6.52	2.50	3.30	3.90
Standard error		0.06	0.09	0.08	0.08
All individuals (+P/L)	29,015	6.54	2.50	3.40	3.90
Standard error		0.06	0.10	0.09	0.08

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
1.10	1.40	1.90	2.60	3.10	4.30
1.70	2.40	3.40	4.30	5.10	7.00
2.90	3.90	5.00	6.20	7.20	9.40
4.55	5.10	5.69	6.27	6.63	7.36
0.23	0.09	0.17	0.38	0.52	0.81
5.60	6.60	7.70	9.00	9.80	11.60
0.22	0.16	0.22	0.37	0.51	0.89
7.00	8.20	9.50	10.90	11.70	13.50
0.57	0.26	0.45	0.97	1.33	2.13
7.90	9.20	10.60	12.00	12.90	14.70
0.18	0.19	0.21	0.24	0.26	0.32
7.00	8.50	10.10	11.70	12.90	15.40
0.25	0.18	0.20	0.37	0.53	0.95
5.90	7.30	8.90	10.80	12.10	15.10
0.17	0.15	0.17	0.27	0.37	0.66
5.00	6.10	7.40	8.80	9.80	12.10
0.14	0.10	0.13	0.25	0.37	0.67
4.66	5.40	6.20	6.99	7.49	8.49
0.11	0.15	0.16	0.16	0.17	0.20
4.10	5.10	6.30	7.60	8.50	10.30
0.16	0.15	0.21	0.35	0.48	0.79
4.70	5.58	6.56	7.47	8.06	9.36
0.23	0.14	0.25	0.44	0.60	1.07
4.92	5.70	6.56	7.42	7.98	9.18
0.18	0.08	0.13	0.27	0.39	0.68
4.25	5.12	6.12	7.16	7.86	9.33
0.10	0.08	0.09	0.13	0.18	0.30
3.80	4.62	5.55	6.52	7.18	8.58
0.10	0.07	0.11	0.21	0.31	0.59
5.83	6.72	7.69	8.65	9.26	10.48
0.29	0.31	0.48	0.63	0.67	0.65
7.35	8.07	8.82	9.50	9.92	10.71
0.51	0.47	0.50	0.56	0.57	0.55
6.14	7.04	8.01	8.93	9.52	10.67
0.25	0.27	0.29	0.31	0.32	0.36
4.80	6.20	7.80	9.60	10.90	13.70
0.07	0.06	0.06	0.10	0.14	0.26
4.90	6.20	7.80	9.60	10.90	13.70
0.08	0.06	0.07	0.11	0.16	0.30

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).  
 SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-5** Mean and Percentiles for Usual Daily Intake of Cysteine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.21	0.10	0.10	0.10
Both sexes, 7–12 mo	827	0.39	0.10	0.10	0.20
Both sexes, 1–3 y	3,309	0.64	0.10	0.30	0.30
Both sexes, 4–8 y	3,448	0.82	0.43	0.53	0.58
Standard error		0.01	0.13	0.10	0.08
M, 9–13 y	1,219	1.09	0.61	0.73	0.80
Standard error		0.05	0.12	0.12	0.12
M, 14–18 y	909	1.30	0.64	0.80	0.89
Standard error		0.04	0.13	0.11	0.09
M, 19–30 y	1,902	1.43	0.83	0.99	1.08
Standard error		0.03	0.03	0.03	0.03
M, 31–50 y	2,533	1.33	0.71	0.86	0.95
Standard error		0.02	0.10	0.09	0.07
M, 51–70 y	1,942	1.16	0.49	0.65	0.74
Standard error		0.02	0.03	0.03	0.03
M, 71+ y	1,255	0.98	0.45	0.57	0.65
Standard error		0.01	0.03	0.03	0.02
F, 9–13 y	1,216	0.86	0.60	0.67	0.71
Standard error		0.02	0.14	0.11	0.09
F, 14–18 y	949	0.83	0.30	0.43	0.50
Standard error		0.03	0.06	0.05	0.04
F, 19–30 y	1,901	0.89	0.53	0.62	0.67
Standard error		0.02	0.12	0.10	0.08
F, 31–50 y	2,939	0.89	0.52	0.61	0.67
Standard error		0.01	0.05	0.04	0.04
F, 51–70 y	2,065	0.81	0.40	0.50	0.56
Standard error		0.01	0.03	0.02	0.02
F, 71+ y	1,368	0.74	0.34	0.44	0.50
Standard error		0.01	0.03	0.03	0.02
Pregnant	346	1.06	0.64	0.75	0.81
Standard error		0.04	0.05	0.06	0.06
Lactating	99	1.27	0.90	1.01	1.07
Standard error		0.08	0.11	0.11	0.11
Pregnant/lactating	440	1.11	0.68	0.79	0.86
Standard error		0.04	0.04	0.05	0.04
All individuals	28,575	1.01	0.39	0.52	0.60
Standard error		0.01	0.02	0.02	0.01
All individuals (+P/L)	29,015	1.01	0.40	0.53	0.61
Standard error		0.01	0.02	0.02	0.02

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.10	0.20	0.30	0.40	0.40	0.70
0.30	0.40	0.50	0.70	0.80	1.00
0.50	0.60	0.80	1.00	1.10	1.50
0.68	0.80	0.94	1.08	1.17	1.36
0.06	0.02	0.05	0.11	0.15	0.24
0.92	1.06	1.24	1.42	1.52	1.76
0.09	0.04	0.08	0.13	0.16	0.32
1.06	1.27	1.51	1.75	1.90	2.22
0.07	0.04	0.06	0.11	0.15	0.25
1.23	1.41	1.60	1.81	1.94	2.23
0.03	0.03	0.03	0.04	0.04	0.05
1.11	1.30	1.51	1.73	1.87	2.17
0.05	0.02	0.04	0.09	0.13	0.20
0.91	1.12	1.36	1.63	1.82	2.24
0.03	0.02	0.02	0.04	0.05	0.10
0.78	0.95	1.14	1.35	1.49	1.80
0.02	0.01	0.02	0.03	0.04	0.10
0.78	0.86	0.94	1.02	1.07	1.17
0.05	0.02	0.05	0.10	0.13	0.21
0.63	0.80	0.99	1.20	1.34	1.64
0.03	0.03	0.04	0.07	0.09	0.15
0.76	0.88	1.01	1.13	1.21	1.38
0.05	0.02	0.05	0.09	0.13	0.21
0.76	0.88	1.00	1.13	1.21	1.38
0.03	0.01	0.02	0.04	0.05	0.09
0.66	0.79	0.93	1.08	1.17	1.38
0.02	0.01	0.01	0.02	0.03	0.05
0.60	0.72	0.86	1.00	1.09	1.27
0.02	0.01	0.01	0.03	0.04	0.07
0.92	1.05	1.19	1.34	1.43	1.61
0.05	0.04	0.07	0.09	0.10	0.08
1.17	1.27	1.38	1.48	1.54	1.65
0.09	0.08	0.09	0.10	0.11	0.11
0.97	1.10	1.25	1.38	1.47	1.64
0.05	0.05	0.05	0.08	0.10	0.06
0.76	0.96	1.21	1.47	1.64	2.01
0.01	0.01	0.01	0.02	0.03	0.04
0.76	0.97	1.21	1.47	1.64	2.00
0.01	0.01	0.01	0.02	0.03	0.05

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for

Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-6** Mean and Percentiles for Usual Daily Intake of Glutamic Acid (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	<i>n</i>	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	3.54	1.20	1.80	2.00
Both sexes, 7–12 mo	827	6.38	1.80	2.60	3.10
Both sexes, 1–3 y	3,309	10.16	2.70	4.50	5.60
Both sexes, 4–8 y	3,448	12.99	8.30	9.50	10.20
Standard error		0.19	0.16	0.16	0.16
M, 9–13 y	1,219	17.04	9.60	11.30	12.30
Standard error		0.40	1.98	1.63	1.40
M, 14–18 y	909	20.10	10.40	12.80	14.10
Standard error		0.53	2.57	2.15	1.87
M, 19–30 y	1,902	21.43	12.50	14.70	16.00
Standard error		0.43	0.44	0.45	0.40
M, 31–50 y	2,533	19.60	9.80	12.20	13.60
Standard error		0.29	0.80	0.69	0.61
M, 51–70 y	1,942	17.11	7.30	9.70	11.00
Standard error		0.27	0.56	0.53	0.42
M, 71+ y	1,255	14.34	6.40	8.20	9.20
Standard error		0.21	0.50	0.43	0.48
F, 9–13 y	1,216	13.54	8.40	9.80	10.50
Standard error		0.22	0.22	0.23	0.23
F, 14–18 y	949	12.94	6.30	8.00	8.90
Standard error		0.38	1.34	1.09	0.93
F, 19–30 y	1,901	13.42	7.20	8.70	9.60
Standard error		0.25	1.03	0.82	0.70
F, 31–50 y	2,939	13.29	6.80	8.50	9.40
Standard error		0.17	0.53	0.45	0.39
F, 51–70 y	2,065	12.07	5.70	7.20	8.10
Standard error		0.15	0.32	0.28	0.26
F, 71+ y	1,368	10.97	5.10	6.50	7.30
Standard error		0.17	0.72	0.61	0.54
Pregnant	346	16.65	10.20	11.90	12.80
Standard error		0.69	0.64	0.59	0.59
Lactating	99	20.10	14.30	16.00	17.00
Standard error		1.21	1.47	1.55	1.47
Pregnant/lactating	440	17.38	10.80	12.50	13.50
Standard error		0.57	0.57	0.55	0.54
All individuals	28,575	15.22	5.90	8.00	9.20
Standard error		0.12	0.18	0.16	0.15
All individuals (+P/L)	29,015	15.27	6.00	8.00	9.30
Standard error		0.12	0.20	0.16	0.18

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
2.60	3.20	4.10	5.30	6.50	9.70
4.10	5.50	8.10	10.80	12.50	15.60
7.40	9.60	12.40	15.10	17.40	23.50
11.40	12.80	14.50	16.00	17.00	19.00
0.17	0.19	0.23	0.28	0.32	0.44
14.30	16.70	19.40	22.20	24.00	27.80
0.92	0.39	0.90	1.90	2.63	4.26
16.60	19.70	23.20	26.50	28.70	33.10
1.30	0.64	0.95	2.01	2.78	4.44
18.30	21.10	24.20	27.20	29.20	33.10
0.38	0.52	0.58	0.56	0.56	0.71
16.10	19.10	22.50	26.10	28.50	33.70
0.45	0.30	0.39	0.74	1.04	1.74
13.40	16.50	20.10	23.90	26.60	32.80
0.47	0.30	0.46	0.59	0.89	1.58
11.30	13.90	16.90	20.10	22.20	26.50
0.35	0.25	0.50	0.57	0.71	1.58
11.90	13.40	15.10	16.70	17.70	19.90
0.22	0.22	0.25	0.28	0.30	0.33
10.60	12.70	15.00	17.30	18.90	22.10
0.65	0.40	0.61	1.18	1.62	2.63
11.20	13.20	15.40	17.60	19.00	22.10
0.48	0.26	0.46	0.84	1.16	2.04
11.00	13.00	15.20	17.50	19.00	22.10
0.28	0.18	0.21	0.39	0.54	0.97
9.80	11.80	14.00	16.40	17.90	21.30
0.21	0.16	0.18	0.25	0.33	0.64
8.90	10.70	12.80	14.90	16.20	18.90
0.37	0.19	0.32	0.66	0.91	1.45
14.50	16.50	18.60	20.70	22.00	24.50
0.63	0.71	0.79	0.86	0.91	1.01
18.50	20.20	21.70	23.10	23.90	25.40
1.33	1.26	1.41	1.53	1.51	1.39
15.20	17.30	19.40	21.40	22.60	25.00
0.56	0.59	0.62	0.66	0.69	0.76
11.50	14.50	18.10	22.20	25.00	31.30
0.13	0.12	0.13	0.21	0.30	0.53
11.50	14.60	18.20	22.20	25.00	31.10
0.15	0.13	0.13	0.20	0.33	0.58

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).  
 SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-7** Mean and Percentiles for Usual Daily Intake of Glycine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.53	0.10	0.20	0.20
Both sexes, 7–12 mo	827	1.03	0.30	0.40	0.50
Both sexes, 1–3 y	3,309	1.83	0.40	0.70	0.90
Both sexes, 4–8 y	3,448	2.43	1.44	1.67	1.80
Standard error		0.04	0.34	0.28	0.24
M, 9–13 y	1,219	3.24	1.77	2.11	2.31
Standard error		0.09	0.43	0.36	0.31
M, 14–18 y	909	4.13	2.22	2.68	2.95
Standard error		0.11	0.58	0.49	0.42
M, 19–30 y	1,902	4.73	2.59	3.11	3.41
Standard error		0.12	0.10	0.12	0.13
M, 31–50 y	2,533	4.36	2.31	2.79	3.08
Standard error		0.08	0.28	0.24	0.21
M, 51–70 y	1,942	3.76	1.59	2.09	2.39
Standard error		0.08	0.13	0.12	0.11
M, 71+ y	1,255	3.05	1.31	1.71	1.95
Standard error		0.05	0.13	0.11	0.10
F, 9–13 y	1,216	2.61	1.71	1.93	2.06
Standard error		0.06	0.54	0.43	0.37
F, 14–18 y	949	2.58	0.82	1.21	1.45
Standard error		0.08	0.14	0.12	0.11
F, 19–30 y	1,901	2.79	1.35	1.67	1.87
Standard error		0.08	0.18	0.15	0.14
F, 31–50 y	2,939	2.86	1.60	1.90	2.08
Standard error		0.04	0.20	0.17	0.15
F, 51–70 y	2,065	2.55	1.19	1.51	1.70
Standard error		0.04	0.11	0.10	0.09
F, 71+ y	1,368	2.27	1.15	1.42	1.58
Standard error		0.04	0.20	0.17	0.15
Pregnant	346	3.28	1.89	2.23	2.43
Standard error		0.19	0.31	0.47	0.49
Lactating	99	3.66	2.53	2.84	3.01
Standard error		0.22	0.17	0.19	0.20
Pregnant/lactating	440	3.37	1.97	2.32	2.53
Standard error		0.13	0.11	0.11	0.11
All individuals	28,575	3.20	1.09	1.52	1.79
Standard error		0.03	0.04	0.04	0.04
All individuals (+P/L)	29,015	3.21	1.11	1.53	1.80
Standard error		0.03	0.04	0.04	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating status data or who

25th	50th	75th	90th	95th	99th
0.30	0.40	0.70	1.00	1.20	1.80
0.60	0.90	1.30	1.80	2.10	3.20
1.20	1.70	2.30	3.00	3.40	4.40
2.05	2.38	2.75	3.11	3.34	3.81
0.16	0.05	0.14	0.29	0.39	0.61
2.69	3.17	3.71	4.27	4.64	5.40
0.21	0.10	0.20	0.43	0.62	1.12
3.44	4.05	4.73	5.41	5.85	6.74
0.29	0.13	0.24	0.51	0.71	1.14
3.96	4.63	5.39	6.17	6.69	7.80
0.12	0.12	0.12	0.14	0.16	0.22
3.61	4.26	5.00	5.76	6.27	7.36
0.16	0.09	0.12	0.25	0.35	0.61
2.93	3.60	4.41	5.31	5.96	7.39
0.10	0.08	0.09	0.15	0.21	0.37
2.38	2.92	3.57	4.31	4.83	5.99
0.08	0.06	0.07	0.13	0.20	0.37
2.30	2.58	2.89	3.19	3.38	3.76
0.24	0.08	0.18	0.41	0.56	0.89
1.89	2.44	3.11	3.87	4.41	5.58
0.09	0.08	0.12	0.20	0.27	0.46
2.23	2.70	3.25	3.81	4.18	5.02
0.11	0.07	0.13	0.23	0.31	0.55
2.40	2.80	3.25	3.70	4.00	4.64
0.10	0.05	0.07	0.15	0.22	0.39
2.04	2.47	2.97	3.50	3.87	4.65
0.07	0.04	0.05	0.11	0.16	0.28
1.86	2.22	2.63	3.03	3.29	3.83
0.10	0.04	0.09	0.20	0.27	0.45
2.79	3.23	3.72	4.21	4.52	5.14
0.39	0.22	0.35	0.50	0.50	0.34
3.31	3.64	3.99	4.32	4.51	4.89
0.21	0.23	0.25	0.28	0.30	0.35
2.89	3.33	3.81	4.27	4.57	5.15
0.12	0.13	0.15	0.16	0.18	0.20
2.29	3.00	3.88	4.88	5.59	7.25
0.03	0.04	0.04	0.06	0.08	0.15
2.30	3.01	3.88	4.87	5.59	7.20
0.03	0.04	0.05	0.06	0.08	0.16

responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-8** Mean and Percentiles for Usual Daily Intake of Histidine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.47	0.10	0.20	0.30
Both sexes, 7–12 mo	827	0.85	0.20	0.30	0.40
Both sexes, 1–3 y	3,309	1.38	0.30	0.60	0.70
Both sexes, 4–8 y	3,448	1.77	1.15	1.31	1.40
Standard error		0.03	0.51	0.39	0.31
M, 9–13 y	1,219	2.36	1.37	1.61	1.75
Standard error		0.06	0.20	0.17	0.15
M, 14–18 y	909	2.93	1.48	1.83	2.03
Standard error		0.08	0.35	0.30	0.26
M, 19–30 y	1,902	3.19	1.78	2.12	2.32
Standard error		0.07	0.07	0.10	0.10
M, 31–50 y	2,533	2.90	1.41	1.76	1.97
Standard error		0.05	0.13	0.12	0.11
M, 51–70 y	1,942	2.50	0.95	1.30	1.51
Standard error		0.05	0.06	0.06	0.05
M, 71+ y	1,255	2.03	0.85	1.13	1.29
Standard error		0.03	0.07	0.06	0.06
F, 9–13 y	1,216	1.89	1.10	1.30	1.42
Standard error		0.04	0.04	0.05	0.06
F, 14–18 y	949	1.80	0.70	0.96	1.12
Standard error		0.05	0.14	0.11	0.10
F, 19–30 y	1,901	1.91	1.00	1.22	1.35
Standard error		0.04	0.16	0.13	0.11
F, 31–50 y	2,939	1.92	1.09	1.30	1.41
Standard error		0.03	0.12	0.10	0.09
F, 51–70 y	2,065	1.72	0.84	1.05	1.17
Standard error		0.02	0.06	0.05	0.05
F, 71+ y	1,368	1.54	0.67	0.88	1.00
Standard error		0.03	0.09	0.06	0.05
Pregnant	346	2.32	1.38	1.62	1.75
Standard error		0.11	0.25	0.28	0.27
Lactating	99	2.72	1.91	2.14	2.26
Standard error		0.13	0.12	0.13	0.13
Pregnant/lactating	440	2.42	1.45	1.70	1.85
Standard error		0.09	0.08	0.08	0.08
All individuals	28,575	2.19	0.82	1.10	1.28
Standard error		0.02	0.03	0.03	0.03
All individuals (+P/L)	29,015	2.20	0.83	1.11	1.29
Standard error		0.02	0.03	0.03	0.03

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and

25th	50th	75th	90th	95th	99th
0.30	0.40	0.50	0.70	0.90	1.30
0.50	0.70	1.10	1.40	1.70	2.30
1.00	1.30	1.70	2.10	2.50	3.10
1.56	1.75	1.96	2.17	2.30	2.56
0.18	0.05	0.17	0.34	0.46	0.69
2.00	2.32	2.67	3.02	3.24	3.71
0.11	0.06	0.10	0.18	0.24	0.38
2.40	2.86	3.39	3.91	4.25	4.94
0.18	0.10	0.14	0.30	0.41	0.67
2.68	3.13	3.63	4.12	4.44	5.09
0.09	0.07	0.08	0.09	0.10	0.13
2.35	2.83	3.36	3.91	4.28	5.11
0.09	0.06	0.08	0.14	0.20	0.34
1.89	2.38	2.96	3.63	4.11	5.19
0.05	0.05	0.06	0.10	0.14	0.25
1.58	1.95	2.39	2.88	3.22	3.98
0.05	0.04	0.04	0.08	0.12	0.21
1.62	1.86	2.13	2.39	2.56	2.90
0.05	0.04	0.05	0.07	0.07	0.06
1.40	1.74	2.14	2.56	2.84	3.43
0.07	0.05	0.08	0.15	0.20	0.32
1.58	1.87	2.20	2.51	2.72	3.15
0.08	0.05	0.07	0.13	0.18	0.32
1.63	1.89	2.17	2.46	2.65	3.04
0.06	0.03	0.05	0.10	0.14	0.23
1.40	1.68	2.00	2.32	2.52	2.94
0.04	0.03	0.03	0.05	0.07	0.11
1.22	1.49	1.81	2.13	2.34	2.80
0.04	0.03	0.04	0.08	0.12	0.27
2.00	2.29	2.62	2.94	3.14	3.56
0.22	0.14	0.20	0.25	0.25	0.22
2.47	2.71	2.96	3.18	3.32	3.58
0.13	0.14	0.17	0.19	0.19	0.19
2.10	2.40	2.72	3.03	3.22	3.60
0.08	0.09	0.10	0.11	0.11	0.13
1.62	2.07	2.63	3.25	3.69	4.65
0.02	0.02	0.02	0.04	0.05	0.10
1.62	2.08	2.64	3.25	3.68	4.63
0.02	0.02	0.02	0.04	0.06	0.11

females who had "blank but applicable" pregnancy and lactating status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-9** Mean and Percentiles for Usual Daily Intake of Isoleucine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.98	0.40	0.50	0.60
Both sexes, 7–12 mo	827	1.63	0.50	0.70	0.80
Both sexes, 1–3 y	3,309	2.40	0.50	1.00	1.30
Both sexes, 4–8 y	3,448	2.98	1.77	2.07	2.25
Standard error		0.04	0.42	0.34	0.28
M, 9–13 y	1,219	3.84	2.19	2.59	2.82
Standard error		0.09	0.28	0.23	0.21
M, 14–18 y	909	4.60	2.15	2.73	3.07
Standard error		0.13	0.44	0.38	0.33
M, 19–30 y	1,902	5.01	2.88	3.42	3.72
Standard error		0.11	0.21	0.23	0.19
M, 31–50 y	2,533	4.59	2.29	2.85	3.18
Standard error		0.08	0.22	0.20	0.17
M, 51–70 y	1,942	4.03	1.61	2.17	2.50
Standard error		0.07	0.11	0.10	0.09
M, 71+ y	1,255	3.36	1.34	1.81	2.08
Standard error		0.05	0.12	0.09	0.07
F, 9–13 y	1,216	3.09	1.81	2.13	2.32
Standard error		0.06	0.05	0.05	0.05
F, 14–18 y	949	2.94	1.19	1.61	1.85
Standard error		0.08	0.20	0.16	0.14
F, 19–30 y	1,901	3.09	1.52	1.90	2.11
Standard error		0.07	0.21	0.17	0.15
F, 31–50 y	2,939	3.12	1.70	2.05	2.25
Standard error		0.04	0.17	0.14	0.12
F, 51–70 y	2,065	2.83	1.31	1.67	1.88
Standard error		0.04	0.08	0.07	0.07
F, 71+ y	1,368	2.58	1.15	1.49	1.69
Standard error		0.05	0.14	0.12	0.11
Pregnant	346	3.78	2.37	2.76	2.95
Standard error		0.26	0.40	0.39	0.27
Lactating	99	4.70	3.30	3.69	3.90
Standard error		0.28	0.24	0.26	0.26
Pregnant/lactating	440	4.03	2.40	2.82	3.06
Standard error		0.15	0.13	0.13	0.14
All individuals	28,575	3.55	1.38	1.84	2.13
Standard error		0.03	0.05	0.04	0.04
All individuals (+P/L)	29,015	3.55	1.42	1.87	2.15
Standard error		0.03	0.06	0.05	0.05

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.70	0.90	1.10	1.50	1.80	2.60
1.00	1.40	2.00	2.70	3.20	4.00
1.70	2.30	2.90	3.70	4.20	5.50
2.56	2.94	3.35	3.76	4.02	4.53
0.17	0.05	0.15	0.32	0.44	0.68
3.24	3.77	4.35	4.93	5.31	6.07
0.15	0.09	0.14	0.25	0.35	0.64
3.70	4.49	5.38	6.26	6.83	7.99
0.25	0.15	0.20	0.38	0.52	0.85
4.25	4.91	5.66	6.42	6.92	7.94
0.12	0.16	0.17	0.14	0.14	0.25
3.76	4.47	5.29	6.13	6.70	7.89
0.13	0.08	0.11	0.21	0.28	0.47
3.11	3.86	4.75	5.76	6.49	8.15
0.08	0.08	0.08	0.13	0.18	0.33
2.58	3.21	3.97	4.83	5.44	6.80
0.06	0.05	0.07	0.12	0.17	0.32
2.65	3.05	3.48	3.90	4.17	4.69
0.05	0.06	0.06	0.07	0.08	0.09
2.30	2.85	3.48	4.13	4.57	5.48
0.11	0.09	0.13	0.21	0.30	0.53
2.51	3.01	3.59	4.15	4.52	5.33
0.11	0.07	0.11	0.20	0.27	0.49
2.61	3.06	3.55	4.04	4.37	5.05
0.08	0.04	0.07	0.14	0.19	0.33
2.27	2.75	3.30	3.87	4.24	5.02
0.05	0.04	0.05	0.08	0.11	0.21
2.06	2.52	3.04	3.56	3.90	4.58
0.08	0.05	0.07	0.14	0.19	0.31
3.26	3.66	4.20	4.78	5.16	5.91
0.23	0.46	0.45	0.32	0.28	0.31
4.27	4.69	5.12	5.51	5.76	6.22
0.28	0.30	0.30	0.31	0.32	0.36
3.48	3.98	4.53	5.06	5.39	6.05
0.15	0.16	0.17	0.18	0.18	0.20
2.67	3.38	4.24	5.17	5.83	7.28
0.04	0.03	0.04	0.06	0.07	0.14
2.69	3.40	4.25	5.14	5.74	7.01
0.04	0.03	0.04	0.07	0.09	0.15

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-10** Mean and Percentiles for Usual Daily Intake of Leucine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	1.63	0.60	0.80	1.00
Both sexes, 7–12 mo	827	2.72	0.90	1.10	1.30
Both sexes, 1–3 y	3,309	4.07	0.90	1.80	2.20
Both sexes, 4–8 y	3,448	5.11	3.21	3.70	3.97
Standard error		0.07	1.36	1.04	0.85
M, 9–13 y	1,219	6.66	4.01	4.69	5.07
Standard error		0.17	0.65	0.50	0.42
M, 14–18 y	909	8.00	3.90	4.90	5.50
Standard error		0.22	0.75	0.65	0.58
M, 19–30 y	1,902	8.64	5.00	5.90	6.40
Standard error		0.17	0.15	0.15	0.15
M, 31–50 y	2,533	7.91	3.90	4.90	5.40
Standard error		0.14	0.36	0.32	0.28
M, 51–70 y	1,942	6.90	2.70	3.70	4.30
Standard error		0.12	0.19	0.16	0.15
M, 71+ y	1,255	5.73	2.40	3.20	3.60
Standard error		0.08	0.17	0.14	0.12
F, 9–13 y	1,216	5.32	4.05	4.39	4.58
Standard error		0.10	1.62	1.20	0.97
F, 14–18 y	949	5.04	2.00	2.70	3.20
Standard error		0.14	0.33	0.27	0.23
F, 19–30 y	1,901	5.30	2.63	3.27	3.63
Standard error		0.11	0.38	0.31	0.27
F, 31–50 y	2,939	5.33	2.88	3.48	3.83
Standard error		0.07	0.27	0.22	0.19
F, 51–70 y	2,065	4.82	2.24	2.86	3.22
Standard error		0.07	0.13	0.11	0.10
F, 71+ y	1,368	4.34	1.89	2.45	2.79
Standard error		0.08	0.18	0.15	0.14
Pregnant	346	6.50	4.17	4.70	4.96
Standard error		0.34	0.43	0.28	0.25
Lactating	99	8.01	5.63	6.30	6.67
Standard error		0.43	0.38	0.37	0.39
Pregnant/lactating	440	6.88	4.15	4.85	5.25
Standard error		0.26	0.22	0.23	0.24
All individuals	28,575	6.08	2.30	3.10	3.60
Standard error		0.05	0.08	0.07	0.07
All individuals (+P/L)	29,015	6.10	2.40	3.20	3.70
Standard error		0.05	0.08	0.07	0.07

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
1.20	1.50	1.90	2.40	2.90	4.20
1.80	2.40	3.30	4.50	5.40	6.70
2.90	3.80	5.00	6.20	7.20	9.40
4.46	5.05	5.69	6.32	6.71	7.49
0.50	0.09	0.45	0.93	1.25	1.89
5.75	6.56	7.46	8.37	8.97	10.22
0.28	0.18	0.27	0.49	0.68	1.13
6.50	7.80	9.30	10.80	11.70	13.60
0.43	0.26	0.31	0.62	0.86	1.39
7.30	8.50	9.80	11.10	11.90	13.50
0.16	0.17	0.18	0.21	0.23	0.29
6.50	7.70	9.10	10.60	11.60	13.80
0.21	0.16	0.19	0.35	0.49	0.83
5.30	6.60	8.10	9.90	11.20	14.10
0.14	0.13	0.14	0.24	0.33	0.59
4.50	5.50	6.70	8.10	9.10	11.30
0.10	0.08	0.11	0.20	0.29	0.52
4.91	5.30	5.70	6.07	6.30	6.76
0.55	0.11	0.51	1.03	1.35	2.01
3.90	4.90	6.00	7.10	7.90	9.40
0.17	0.15	0.23	0.37	0.49	0.84
4.30	5.18	6.16	7.10	7.72	9.12
0.19	0.11	0.18	0.34	0.48	0.88
4.46	5.23	6.08	6.93	7.50	8.70
0.14	0.08	0.11	0.21	0.30	0.52
3.88	4.69	5.62	6.57	7.20	8.52
0.08	0.07	0.08	0.13	0.17	0.29
3.42	4.22	5.13	6.05	6.64	7.86
0.11	0.08	0.13	0.20	0.25	0.44
5.48	6.34	7.37	8.28	8.81	9.92
0.37	0.40	0.56	0.54	0.47	0.43
7.30	8.00	8.71	9.36	9.75	10.50
0.42	0.45	0.48	0.50	0.52	0.58
5.96	6.80	7.72	8.60	9.15	10.24
0.25	0.27	0.29	0.30	0.31	0.34
4.50	5.80	7.30	8.90	10.10	12.70
0.06	0.05	0.06	0.09	0.14	0.24
4.60	5.80	7.30	8.90	10.10	12.60
0.06	0.05	0.06	0.10	0.15	0.26

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-11** Mean and Percentiles for Usual Daily Intake of Lysine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	1.24	0.40	0.60	0.70
Both sexes, 7–12 mo	827	2.15	0.60	0.80	1.00
Both sexes, 1–3 y	3,309	3.35	0.70	1.30	1.70
Both sexes, 4–8 y	3,448	4.23	2.72	3.10	3.32
Standard error		0.06	0.89	0.69	0.57
M, 9–13 y	1,219	5.55	3.01	3.64	4.00
Standard error		0.13	0.51	0.42	0.36
M, 14–18 y	909	6.91	3.40	4.20	4.70
Standard error		0.20	0.93	0.79	0.69
M, 19–30 y	1,902	7.66	4.20	5.00	5.50
Standard error		0.16	0.13	0.13	0.14
M, 31–50 y	2,533	6.97	3.30	4.20	4.70
Standard error		0.14	0.35	0.31	0.28
M, 51–70 y	1,942	6.00	2.30	3.10	3.60
Standard error		0.12	0.15	0.14	0.13
M, 71+ y	1,255	4.88	1.98	2.64	3.03
Standard error		0.09	0.20	0.18	0.16
F, 9–13 y	1,216	4.47	2.51	3.00	3.28
Standard error		0.09	0.07	0.07	0.07
F, 14–18 y	949	4.28	1.60	2.23	2.61
Standard error		0.12	0.29	0.25	0.21
F, 19–30 y	1,901	4.60	2.39	2.92	3.23
Standard error		0.12	0.43	0.35	0.31
F, 31–50 y	2,939	4.65	2.58	3.09	3.38
Standard error		0.07	0.34	0.28	0.24
F, 51–70 y	2,065	4.16	1.86	2.40	2.72
Standard error		0.06	0.14	0.14	0.13
F, 71+ y	1,368	3.71	1.59	2.09	2.39
Standard error		0.08	0.25	0.18	0.16
Pregnant	346	5.57	3.19	3.77	4.11
Standard error		0.22	0.25	0.34	0.34
Lactating	99	6.64	4.51	5.09	5.41
Standard error		0.32	0.24	0.27	0.29
Pregnant/lactating	440	5.85	3.41	4.03	4.38
Standard error		0.21	0.18	0.18	0.19
All individuals	28,575	5.26	1.90	2.60	3.10
Standard error		0.05	0.08	0.07	0.06
All individuals (+P/L)	29,015	5.27	2.00	2.70	3.10
Standard error		0.05	0.08	0.08	0.07

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.90	1.10	1.40	1.90	2.30	3.60
1.30	1.90	2.70	3.60	4.40	5.60
2.30	3.10	4.20	5.30	6.20	7.40
3.71	4.18	4.69	5.19	5.50	6.13
0.34	0.08	0.30	0.63	0.85	1.30
4.65	5.43	6.32	7.24	7.85	9.13
0.25	0.15	0.20	0.40	0.56	0.95
5.60	6.80	8.00	9.30	10.10	11.80
0.48	0.24	0.36	0.78	1.09	1.76
6.40	7.50	8.70	10.00	10.80	12.40
0.14	0.16	0.18	0.20	0.22	0.28
5.60	6.80	8.10	9.50	10.40	12.40
0.22	0.15	0.19	0.35	0.49	0.85
4.50	5.70	7.10	8.80	9.90	12.60
0.12	0.12	0.15	0.24	0.33	0.58
3.75	4.65	5.76	7.02	7.93	9.96
0.13	0.10	0.11	0.21	0.32	0.61
3.79	4.40	5.08	5.73	6.15	6.98
0.08	0.09	0.10	0.11	0.12	0.14
3.29	4.14	5.12	6.14	6.82	8.25
0.16	0.12	0.19	0.34	0.46	0.77
3.79	4.50	5.30	6.07	6.58	7.67
0.21	0.11	0.23	0.41	0.56	0.95
3.91	4.56	5.29	6.01	6.48	7.48
0.16	0.07	0.13	0.29	0.40	0.69
3.31	4.04	4.88	5.74	6.32	7.52
0.10	0.07	0.10	0.13	0.17	0.41
2.92	3.59	4.36	5.17	5.71	6.87
0.12	0.09	0.10	0.20	0.36	0.88
4.72	5.48	6.32	7.15	7.69	8.77
0.27	0.22	0.40	0.56	0.59	0.52
5.97	6.61	7.29	7.92	8.30	9.06
0.33	0.35	0.37	0.39	0.41	0.51
5.01	5.77	6.60	7.40	7.90	8.90
0.20	0.22	0.24	0.25	0.27	0.30
3.90	5.00	6.30	7.80	8.80	11.20
0.06	0.05	0.06	0.10	0.13	0.24
3.90	5.00	6.30	7.80	8.80	11.10
0.07	0.05	0.06	0.10	0.15	0.27

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).  
 SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-12** Mean and Percentiles for Usual Daily Intake of Methionine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.37	0.10	0.20	0.20
Both sexes, 7–12 mo	827	0.69	0.20	0.20	0.30
Both sexes, 1–3 y	3,309	1.13	0.30	0.40	0.60
Both sexes, 4–8 y	3,448	1.43	0.85	1.00	1.08
Standard error		0.03	0.21	0.16	0.14
M, 9–13 y	1,219	1.87	1.03	1.23	1.35
Standard error		0.05	0.14	0.12	0.11
M, 14–18 y	909	2.31	1.09	1.38	1.55
Standard error		0.07	0.27	0.23	0.21
M, 19–30 y	1,902	2.54	1.42	1.69	1.85
Standard error		0.05	0.04	0.05	0.05
M, 31–50 y	2,533	2.32	1.16	1.44	1.60
Standard error		0.04	0.15	0.13	0.12
M, 51–70 y	1,942	2.01	0.80	1.07	1.24
Standard error		0.04	0.06	0.05	0.04
M, 71+ y	1,255	1.66	0.70	0.92	1.06
Standard error		0.03	0.07	0.06	0.05
F, 9–13 y	1,216	1.51	1.18	1.27	1.32
Standard error		0.03	0.50	0.37	0.30
F, 14–18 y	949	1.44	0.53	0.75	0.88
Standard error		0.04	0.12	0.10	0.09
F, 19–30 y	1,901	1.55	0.78	0.96	1.07
Standard error		0.04	0.12	0.10	0.08
F, 31–50 y	2,939	1.56	0.88	1.05	1.15
Standard error		0.02	0.11	0.09	0.08
F, 51–70 y	2,065	1.40	0.63	0.81	0.92
Standard error		0.02	0.05	0.04	0.04
F, 71+ y	1,368	1.26	0.58	0.74	0.84
Standard error		0.03	0.07	0.06	0.05
Pregnant	346	1.89	1.10	1.30	1.41
Standard error		0.10	0.18	0.26	0.27
Lactating	99	2.23	1.54	1.73	1.83
Standard error		0.12	0.13	0.17	0.18
Pregnant/lactating	440	1.97	1.17	1.37	1.49
Standard error		0.07	0.06	0.06	0.07
All individuals	28,575	1.76	0.67	0.90	1.04
Standard error		0.02	0.03	0.03	0.03
All individuals (+P/L)	29,015	1.77	0.68	0.91	1.05
Standard error		0.02	0.03	0.03	0.03

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.30	0.30	0.40	0.60	0.70	1.20
0.40	0.60	0.90	1.20	1.40	1.90
0.80	1.10	1.40	1.80	2.00	2.50
1.23	1.41	1.61	1.80	1.93	2.18
0.09	0.05	0.09	0.16	0.22	0.34
1.57	1.83	2.14	2.44	2.64	3.04
0.08	0.05	0.07	0.12	0.16	0.30
1.86	2.25	2.70	3.15	3.43	4.02
0.15	0.08	0.11	0.24	0.33	0.53
2.14	2.50	2.90	3.30	3.55	4.07
0.05	0.05	0.06	0.07	0.07	0.09
1.90	2.26	2.68	3.12	3.41	4.02
0.09	0.05	0.07	0.15	0.20	0.35
1.54	1.92	2.38	2.89	3.27	4.12
0.04	0.04	0.05	0.08	0.10	0.18
1.29	1.59	1.94	2.34	2.63	3.25
0.04	0.03	0.04	0.07	0.11	0.19
1.40	1.50	1.61	1.70	1.76	1.88
0.18	0.04	0.15	0.31	0.41	0.61
1.11	1.39	1.72	2.07	2.30	2.80
0.06	0.04	0.07	0.13	0.18	0.30
1.26	1.52	1.80	2.08	2.26	2.65
0.06	0.04	0.06	0.11	0.15	0.26
1.32	1.54	1.77	2.01	2.17	2.49
0.05	0.02	0.04	0.09	0.12	0.21
1.12	1.37	1.65	1.94	2.13	2.53
0.03	0.02	0.03	0.04	0.06	0.11
1.01	1.23	1.47	1.72	1.89	2.26
0.04	0.03	0.03	0.07	0.10	0.17
1.61	1.86	2.13	2.40	2.58	2.93
0.22	0.12	0.19	0.28	0.28	0.18
2.01	2.22	2.43	2.63	2.76	3.00
0.16	0.12	0.14	0.17	0.19	0.20
1.69	1.94	2.22	2.48	2.65	2.98
0.07	0.07	0.08	0.09	0.09	0.10
1.31	1.68	2.12	2.59	2.90	3.58
0.02	0.02	0.02	0.03	0.05	0.08
1.32	1.68	2.12	2.59	2.90	3.57
0.02	0.02	0.02	0.04	0.05	0.09

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).  
 SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-13** Mean and Percentiles for Usual Daily Intake of Phenylalanine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.84	0.30	0.40	0.50
Both sexes, 7–12 mo	827	1.45	0.40	0.60	0.70
Both sexes, 1–3 y	3,309	2.25	0.50	1.00	1.20
Both sexes, 4–8 y	3,448	2.84	1.79	2.05	2.21
Standard error		0.04	0.54	0.42	0.34
M, 9–13 y	1,219	3.72	2.28	2.65	2.86
Standard error		0.10	0.34	0.27	0.24
M, 14–18 y	909	4.44	2.16	2.70	3.03
Standard error		0.12	0.45	0.38	0.33
M, 19–30 y	1,902	4.82	2.79	3.29	3.58
Standard error		0.10	0.11	0.12	0.11
M, 31–50 y	2,533	4.41	2.17	2.72	3.04
Standard error		0.07	0.18	0.15	0.14
M, 51–70 y	1,942	3.85	1.57	2.10	2.42
Standard error		0.07	0.11	0.09	0.08
M, 71+ y	1,255	3.22	1.43	1.84	2.09
Standard error		0.05	0.12	0.09	0.08
F, 9–13 y	1,216	2.97	1.79	2.09	2.26
Standard error		0.06	0.05	0.07	0.07
F, 14–18 y	949	2.83	1.18	1.58	1.81
Standard error		0.08	0.17	0.15	0.13
F, 19–30 y	1,901	2.98	1.52	1.87	2.07
Standard error		0.06	0.22	0.18	0.15
F, 31–50 y	2,939	2.97	1.64	1.97	2.17
Standard error		0.04	0.15	0.12	0.11
F, 51–70 y	2,065	2.69	1.26	1.60	1.81
Standard error		0.04	0.08	0.06	0.06
F, 71+ y	1,368	2.44	1.10	1.42	1.60
Standard error		0.04	0.13	0.11	0.10
Pregnant	346	3.63	2.20	2.56	2.77
Standard error		0.20	0.33	0.34	0.28
Lactating	99	4.44	3.16	3.53	3.73
Standard error		0.24	0.26	0.25	0.24
Pregnant/lactating	440	3.83	2.33	2.72	2.95
Standard error		0.15	0.12	0.13	0.13
All individuals	28,575	3.39	1.32	1.76	2.03
Standard error		0.03	0.05	0.04	0.04
All individuals (+P/L)	29,015	3.40	1.34	1.78	2.05
Standard error		0.03	0.05	0.04	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.60	0.80	1.00	1.30	1.50	2.20
0.90	1.30	1.80	2.40	2.80	3.70
1.60	2.10	2.80	3.40	3.90	5.30
2.48	2.81	3.17	3.52	3.74	4.18
0.20	0.06	0.19	0.39	0.52	0.78
3.23	3.67	4.16	4.66	4.98	5.67
0.16	0.10	0.16	0.30	0.39	0.63
3.61	4.34	5.16	5.97	6.49	7.53
0.23	0.13	0.20	0.39	0.52	0.83
4.11	4.75	5.45	6.15	6.59	7.48
0.09	0.11	0.13	0.13	0.13	0.16
3.61	4.30	5.10	5.93	6.49	7.68
0.10	0.07	0.10	0.18	0.25	0.41
2.99	3.70	4.53	5.45	6.12	7.62
0.07	0.07	0.08	0.13	0.17	0.30
2.53	3.09	3.76	4.51	5.03	6.18
0.06	0.04	0.07	0.12	0.18	0.34
2.57	2.94	3.34	3.72	3.97	4.45
0.07	0.06	0.06	0.07	0.08	0.09
2.24	2.75	3.34	3.95	4.35	5.20
0.10	0.08	0.12	0.19	0.26	0.43
2.44	2.91	3.45	3.96	4.29	5.03
0.11	0.06	0.12	0.21	0.28	0.49
2.51	2.92	3.38	3.84	4.14	4.77
0.08	0.04	0.06	0.12	0.16	0.28
2.17	2.62	3.13	3.66	4.01	4.74
0.05	0.04	0.04	0.06	0.09	0.20
1.95	2.38	2.86	3.34	3.65	4.28
0.07	0.04	0.06	0.13	0.17	0.28
3.13	3.58	4.07	4.56	4.86	5.48
0.20	0.30	0.39	0.38	0.34	0.25
4.06	4.43	4.81	5.15	5.35	5.74
0.24	0.25	0.29	0.33	0.35	0.36
3.34	3.80	4.29	4.76	5.05	5.61
0.15	0.17	0.17	0.17	0.17	0.17
2.55	3.24	4.07	4.95	5.54	6.79
0.03	0.03	0.03	0.05	0.07	0.11
2.57	3.25	4.07	4.94	5.52	6.75
0.03	0.03	0.03	0.06	0.08	0.13

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-14** Mean and Percentiles for Usual Daily Intake of Proline (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	1.34	0.40	0.60	0.80
Both sexes, 7–12 mo	827	2.39	0.70	0.90	1.10
Both sexes, 1–3 y	3,309	3.73	0.90	1.60	2.00
Both sexes, 4–8 y	3,448	4.66	2.93	3.37	3.62
Standard error		0.07	0.06	0.06	0.06
M, 9–13 y	1,219	6.00	3.49	4.12	4.48
Standard error		0.14	0.73	0.59	0.50
M, 14–18 y	909	7.00	3.40	4.30	4.80
Standard error		0.19	0.67	0.57	0.51
M, 19–30 y	1,902	7.31	4.87	5.50	5.85
Standard error		0.14	1.37	1.06	0.88
M, 31–50 y	2,533	6.54	3.30	4.10	4.50
Standard error		0.10	0.29	0.25	0.22
M, 51–70 y	1,942	5.65	2.30	3.10	3.60
Standard error		0.08	0.19	0.16	0.14
M, 71+ y	1,255	4.76	2.03	2.61	2.97
Standard error		0.08	0.10	0.08	0.07
F, 9–13 y	1,216	4.78	2.93	3.42	3.69
Standard error		0.09	0.08	0.09	0.09
F, 14–18 y	949	4.48	2.13	2.70	3.03
Standard error		0.13	0.42	0.35	0.31
F, 19–30 y	1,901	4.54	2.31	2.87	3.19
Standard error		0.07	0.34	0.27	0.23
F, 31–50 y	2,939	4.45	2.28	2.82	3.13
Standard error		0.06	0.18	0.15	0.13
F, 51–70 y	2,065	4.03	1.80	2.30	2.61
Standard error		0.06	0.10	0.10	0.10
F, 71+ y	1,368	3.69	1.67	2.14	2.42
Standard error		0.06	0.20	0.17	0.15
Pregnant	346	5.81	3.53	4.12	4.45
Standard error		0.33	0.25	0.27	0.29
Lactating	99	7.01	5.00	5.60	5.91
Standard error		0.50	0.36	0.37	0.42
Pregnant/lactating	440	6.10	3.72	4.35	4.70
Standard error		0.22	0.19	0.19	0.20
All individuals	28,575	5.19	2.00	2.70	3.10
Standard error		0.04	0.07	0.06	0.06
All individuals (+P/L)	29,015	5.21	2.00	2.70	3.10
Standard error		0.04	0.07	0.06	0.06

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.90	1.20	1.60	2.00	2.50	3.80
1.40	2.00	3.10	4.20	5.00	6.10
2.70	3.50	4.60	5.60	6.40	8.50
4.07	4.61	5.20	5.76	6.12	6.83
0.06	0.07	0.08	0.09	0.10	0.13
5.12	5.89	6.75	7.65	8.24	9.52
0.33	0.15	0.28	0.61	0.86	1.42
5.70	6.80	8.10	9.40	10.30	12.00
0.37	0.22	0.30	0.58	0.79	1.26
6.48	7.23	8.06	8.86	9.37	10.39
0.55	0.17	0.48	1.02	1.39	2.15
5.40	6.40	7.50	8.70	9.60	11.30
0.16	0.10	0.14	0.29	0.40	0.68
4.40	5.40	6.60	8.00	8.90	11.00
0.11	0.09	0.10	0.21	0.30	0.54
3.66	4.56	5.64	6.79	7.55	9.19
0.06	0.07	0.11	0.17	0.22	0.35
4.17	4.73	5.34	5.93	6.31	7.09
0.09	0.09	0.10	0.11	0.12	0.12
3.63	4.39	5.23	6.06	6.59	7.67
0.21	0.13	0.23	0.42	0.56	0.88
3.76	4.45	5.22	6.02	6.54	7.63
0.15	0.08	0.13	0.27	0.38	0.62
3.69	4.36	5.11	5.87	6.37	7.41
0.09	0.06	0.07	0.13	0.18	0.29
3.18	3.91	4.74	5.59	6.14	7.28
0.08	0.06	0.09	0.12	0.15	0.30
2.94	3.60	4.34	5.08	5.57	6.55
0.11	0.07	0.10	0.19	0.27	0.43
5.04	5.75	6.52	7.27	7.74	8.69
0.33	0.36	0.37	0.37	0.36	0.36
6.44	7.02	7.59	8.10	8.40	8.97
0.65	0.53	0.46	0.61	0.63	0.47
5.32	6.05	6.82	7.54	7.99	8.87
0.21	0.23	0.24	0.24	0.25	0.26
3.90	4.90	6.20	7.60	8.50	10.60
0.05	0.04	0.05	0.08	0.11	0.21
3.90	5.00	6.20	7.60	8.50	10.60
0.05	0.04	0.04	0.08	0.12	0.21

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-15** Mean and Percentiles for Usual Daily Intake of Serine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.93	0.30	0.50	0.50
Both sexes, 7–12 mo	827	1.57	0.50	0.70	0.80
Both sexes, 1–3 y	3,309	2.39	0.60	1.10	1.30
Both sexes, 4–8 y	3,448	2.98	1.77	2.08	2.26
Standard error		0.05	0.52	0.41	0.34
M, 9–13 y	1,219	3.88	2.31	2.71	2.94
Standard error		0.11	0.39	0.32	0.27
M, 14–18 y	909	4.58	2.17	2.74	3.08
Standard error		0.12	0.43	0.38	0.34
M, 19–30 y	1,902	4.91	2.88	3.40	3.68
Standard error		0.10	0.13	0.13	0.12
M, 31–50 y	2,533	4.53	2.20	2.77	3.11
Standard error		0.07	0.19	0.16	0.14
M, 51–70 y	1,942	3.96	1.64	2.18	2.51
Standard error		0.07	0.12	0.10	0.10
M, 71+ y	1,255	3.35	1.54	1.96	2.21
Standard error		0.05	0.11	0.10	0.09
F, 9–13 y	1,216	3.09	1.86	2.18	2.36
Standard error		0.05	0.05	0.06	0.06
F, 14–18 y	949	2.93	1.23	1.63	1.86
Standard error		0.08	0.17	0.14	0.12
F, 19–30 y	1,901	3.06	1.63	1.98	2.18
Standard error		0.06	0.25	0.20	0.17
F, 31–50 y	2,939	3.06	1.67	2.02	2.22
Standard error		0.04	0.15	0.13	0.11
F, 51–70 y	2,065	2.78	1.28	1.64	1.85
Standard error		0.04	0.08	0.08	0.09
F, 71+ y	1,368	2.53	1.14	1.46	1.66
Standard error		0.04	0.11	0.10	0.09
Pregnant	346	3.77	2.27	2.65	2.86
Standard error		0.18	0.15	0.15	0.14
Lactating	99	4.59	3.26	3.64	3.85
Standard error		0.26	0.24	0.25	0.26
Pregnant/lactating	440	3.97	2.40	2.81	3.05
Standard error		0.15	0.13	0.14	0.14
All individuals	28,575	3.51	1.38	1.84	2.12
Standard error		0.03	0.05	0.04	0.04
All individuals (+P/L)	29,015	3.52	1.40	1.85	2.14
Standard error		0.03	0.05	0.04	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.70	0.80	1.10	1.40	1.70	2.30
1.00	1.40	2.00	2.60	3.00	3.90
1.70	2.20	2.90	3.60	4.10	5.50
2.57	2.94	3.35	3.75	4.01	4.53
0.21	0.06	0.18	0.38	0.52	0.81
3.34	3.82	4.35	4.89	5.26	6.02
0.19	0.11	0.17	0.31	0.42	0.67
3.70	4.48	5.35	6.22	6.78	7.93
0.26	0.15	0.17	0.34	0.48	0.80
4.19	4.82	5.54	6.27	6.75	7.70
0.09	0.13	0.15	0.13	0.13	0.17
3.70	4.42	5.23	6.09	6.68	7.94
0.11	0.07	0.10	0.19	0.26	0.44
3.09	3.82	4.65	5.59	6.26	7.76
0.08	0.08	0.08	0.14	0.20	0.36
2.66	3.22	3.90	4.64	5.16	6.29
0.06	0.05	0.07	0.13	0.19	0.34
2.68	3.06	3.46	3.86	4.11	4.62
0.06	0.05	0.06	0.07	0.08	0.10
2.30	2.85	3.47	4.09	4.49	5.30
0.10	0.09	0.13	0.19	0.25	0.39
2.54	3.01	3.52	4.01	4.33	5.02
0.12	0.06	0.11	0.20	0.28	0.49
2.57	3.01	3.48	3.96	4.27	4.93
0.08	0.04	0.06	0.12	0.16	0.27
2.23	2.70	3.24	3.79	4.16	4.94
0.07	0.04	0.07	0.07	0.09	0.31
2.02	2.46	2.97	3.47	3.80	4.46
0.07	0.04	0.07	0.12	0.16	0.22
3.25	3.72	4.24	4.74	5.06	5.70
0.16	0.21	0.24	0.24	0.24	0.25
4.19	4.59	4.98	5.34	5.55	5.97
0.27	0.28	0.28	0.27	0.27	0.29
3.46	3.94	4.45	4.94	5.24	5.84
0.15	0.16	0.17	0.17	0.17	0.19
2.65	3.34	4.18	5.09	5.73	7.15
0.03	0.03	0.03	0.05	0.08	0.14
2.66	3.35	4.19	5.09	5.73	7.11
0.03	0.03	0.03	0.06	0.08	0.15

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-16** Mean and Percentiles for Usual Daily Intake of Threonine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.82	0.30	0.40	0.50
Both sexes, 7–12 mo	827	1.33	0.40	0.60	0.70
Both sexes, 1–3 y	3,309	1.97	0.50	0.80	1.10
Both sexes, 4–8 y	3,448	2.46	1.55	1.78	1.91
Standard error		0.03	0.35	0.27	0.23
M, 9–13 y	1,219	3.21	1.82	2.15	2.35
Standard error		0.08	0.24	0.20	0.17
M, 14–18 y	909	3.92	1.89	2.37	2.65
Standard error		0.11	0.52	0.44	0.38
M, 19–30 y	1,902	4.29	2.42	2.87	3.14
Standard error		0.09	0.08	0.09	0.10
M, 31–50 y	2,533	3.95	1.93	2.41	2.70
Standard error		0.08	0.19	0.16	0.14
M, 51–70 y	1,942	3.45	1.35	1.83	2.12
Standard error		0.06	0.09	0.08	0.07
M, 71+ y	1,255	2.86	1.22	1.60	1.82
Standard error		0.05	0.09	0.08	0.07
F, 9–13 y	1,216	2.57	1.49	1.77	1.92
Standard error		0.05	0.04	0.04	0.04
F, 14–18 y	949	2.45	0.93	1.29	1.50
Standard error		0.07	0.15	0.12	0.10
F, 19–30 y	1,901	2.61	1.33	1.64	1.81
Standard error		0.06	0.21	0.17	0.15
F, 31–50 y	2,939	2.64	1.45	1.75	1.91
Standard error		0.04	0.16	0.13	0.11
F, 51–70 y	2,065	2.40	1.12	1.42	1.60
Standard error		0.03	0.08	0.07	0.07
F, 71+ y	1,368	2.17	0.95	1.25	1.42
Standard error		0.04	0.10	0.08	0.08
Pregnant	346	3.22	1.93	2.28	2.48
Standard error		0.20	0.21	0.24	0.27
Lactating	99	3.88	2.72	3.04	3.22
Standard error		0.21	0.18	0.19	0.20
Pregnant/lactating	440	3.36	1.99	2.34	2.54
Standard error		0.13	0.11	0.11	0.12
All individuals	28,575	3.01	1.16	1.55	1.79
Standard error		0.03	0.04	0.04	0.04
All individuals (+P/L)	29,015	3.02	1.18	1.56	1.80
Standard error		0.03	0.05	0.04	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.60	0.70	0.90	1.20	1.50	2.10
0.90	1.20	1.60	2.20	2.60	3.50
1.40	1.80	2.40	3.00	3.50	4.50
2.15	2.43	2.74	3.05	3.24	3.62
0.14	0.04	0.12	0.26	0.35	0.54
2.71	3.15	3.65	4.15	4.47	5.12
0.12	0.07	0.12	0.22	0.31	0.58
3.17	3.82	4.56	5.30	5.78	6.76
0.27	0.13	0.20	0.44	0.60	0.97
3.62	4.21	4.87	5.53	5.95	6.81
0.10	0.09	0.10	0.11	0.12	0.16
3.21	3.85	4.57	5.30	5.81	6.90
0.11	0.10	0.11	0.19	0.26	0.43
2.64	3.29	4.08	4.98	5.62	7.07
0.07	0.07	0.08	0.13	0.17	0.29
2.23	2.74	3.36	4.06	4.56	5.67
0.06	0.05	0.06	0.11	0.16	0.29
2.20	2.54	2.91	3.27	3.49	3.95
0.05	0.05	0.06	0.07	0.08	0.09
1.89	2.37	2.93	3.51	3.90	4.74
0.08	0.07	0.11	0.18	0.25	0.43
2.13	2.55	3.02	3.47	3.76	4.41
0.11	0.06	0.10	0.19	0.26	0.48
2.22	2.59	3.01	3.43	3.70	4.29
0.08	0.04	0.06	0.13	0.18	0.31
1.93	2.33	2.79	3.27	3.58	4.24
0.05	0.04	0.05	0.07	0.09	0.19
1.72	2.10	2.54	2.99	3.30	3.94
0.06	0.04	0.05	0.10	0.14	0.27
2.80	3.17	3.58	4.01	4.30	4.92
0.32	0.28	0.25	0.27	0.27	0.27
3.52	3.87	4.23	4.57	4.77	5.17
0.21	0.22	0.23	0.23	0.24	0.27
2.90	3.32	3.78	4.22	4.49	5.04
0.12	0.13	0.14	0.14	0.15	0.16
2.24	2.85	3.60	4.41	4.99	6.27
0.03	0.03	0.03	0.05	0.08	0.13
2.26	2.87	3.61	4.41	4.98	6.23
0.03	0.03	0.03	0.05	0.08	0.14

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).  
 SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-17** Mean and Percentiles for Usual Daily Intake of Tryptophan (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.25	0.10	0.10	0.10
Both sexes, 7–12 mo	827	0.41	0.10	0.20	0.20
Both sexes, 1–3 y	3,309	0.62	0.10	0.30	0.30
Both sexes, 4–8 y	3,448	0.77	0.47	0.54	0.58
Standard error		0.01	0.15	0.12	0.10
M, 9–13 y	1,219	1.00	0.55	0.66	0.72
Standard error		0.02	0.09	0.08	0.07
M, 14–18 y	909	1.20	0.56	0.71	0.80
Standard error		0.03	0.26	0.21	0.18
M, 19–30 y	1,902	1.28	0.74	0.88	0.96
Standard error		0.03	0.05	0.06	0.06
M, 31–50 y	2,533	1.18	0.61	0.76	0.84
Standard error		0.02	0.12	0.10	0.09
M, 51–70 y	1,942	1.04	0.41	0.56	0.64
Standard error		0.02	0.03	0.02	0.02
M, 71+ y	1,255	0.87	0.38	0.49	0.56
Standard error		0.01	0.03	0.03	0.03
F, 9–13 y	1,216	0.80	0.47	0.56	0.61
Standard error		0.01	0.01	0.02	0.02
F, 14–18 y	949	0.76	0.33	0.43	0.50
Standard error		0.02	0.05	0.04	0.04
F, 19–30 y	1,901	0.80	0.42	0.51	0.56
Standard error		0.02	0.06	0.06	0.05
F, 31–50 y	2,939	0.80	0.43	0.52	0.57
Standard error		0.01	0.05	0.04	0.03
F, 51–70 y	2,065	0.73	0.34	0.43	0.49
Standard error		0.01	0.02	0.02	0.02
F, 71+ y	1,368	0.67	0.31	0.40	0.45
Standard error		0.01	0.04	0.03	0.02
Pregnant	346	0.99	0.59	0.69	0.75
Standard error		0.04	0.07	0.11	0.11
Lactating	99	1.22	0.87	0.97	1.03
Standard error		0.07	0.07	0.07	0.07
Pregnant/lactating	440	1.05	0.63	0.74	0.80
Standard error		0.04	0.04	0.03	0.04
All individuals	28,575	0.91	0.36	0.48	0.55
Standard error		0.01	0.02	0.01	0.01
All individuals (+P/L)	29,015	0.91	0.37	0.48	0.56
Standard error		0.01	0.02	0.02	0.01

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.20	0.20	0.30	0.40	0.50	0.60
0.30	0.40	0.50	0.70	0.80	1.00
0.40	0.60	0.80	0.90	1.10	1.40
0.66	0.76	0.86	0.96	1.03	1.16
0.06	0.02	0.05	0.11	0.16	0.23
0.84	0.98	1.14	1.30	1.41	1.62
0.05	0.02	0.04	0.08	0.10	0.15
0.97	1.17	1.40	1.63	1.77	2.07
0.12	0.04	0.10	0.22	0.30	0.48
1.09	1.26	1.45	1.64	1.76	2.02
0.03	0.03	0.05	0.05	0.04	0.05
0.98	1.15	1.35	1.55	1.69	1.98
0.06	0.03	0.04	0.11	0.15	0.25
0.80	1.00	1.23	1.49	1.68	2.11
0.02	0.02	0.02	0.04	0.05	0.10
0.68	0.84	1.02	1.23	1.37	1.69
0.02	0.01	0.03	0.03	0.05	0.13
0.69	0.79	0.90	1.00	1.07	1.20
0.02	0.02	0.02	0.02	0.02	0.02
0.61	0.74	0.89	1.05	1.16	1.37
0.03	0.02	0.03	0.05	0.07	0.11
0.66	0.78	0.92	1.06	1.14	1.33
0.04	0.02	0.03	0.07	0.09	0.14
0.66	0.78	0.91	1.04	1.13	1.31
0.02	0.01	0.02	0.04	0.05	0.09
0.59	0.71	0.85	0.99	1.08	1.28
0.01	0.01	0.01	0.02	0.03	0.05
0.54	0.65	0.78	0.90	0.98	1.16
0.02	0.01	0.02	0.03	0.04	0.08
0.85	0.98	1.12	1.25	1.34	1.51
0.09	0.04	0.09	0.13	0.13	0.09
1.12	1.22	1.32	1.41	1.47	1.57
0.07	0.07	0.09	0.10	0.10	0.10
0.91	1.04	1.18	1.30	1.38	1.54
0.04	0.04	0.04	0.04	0.04	0.05
0.69	0.87	1.09	1.32	1.48	1.80
0.01	0.01	0.01	0.02	0.03	0.04
0.69	0.88	1.09	1.32	1.47	1.79
0.01	0.01	0.01	0.02	0.03	0.04

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001).

SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-18** Mean and Percentiles for Usual Daily Intake of Tyrosine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	0.78	0.30	0.40	0.40
Both sexes, 7–12 mo	827	1.29	0.40	0.50	0.60
Both sexes, 1–3 y	3,309	1.90	0.40	0.80	1.00
Both sexes, 4–8 y	3,448	2.37	1.48	1.71	1.84
Standard error		0.03	0.41	0.32	0.26
M, 9–13 y	1,219	3.09	1.79	2.12	2.31
Standard error		0.08	0.26	0.21	0.18
M, 14–18 y	909	3.69	1.85	2.29	2.55
Standard error		0.10	0.39	0.33	0.29
M, 19–30 y	1,902	4.00	2.29	2.71	2.96
Standard error		0.08	0.07	0.07	0.07
M, 31–50 y	2,533	3.62	1.75	2.21	2.47
Standard error		0.06	0.16	0.14	0.12
M, 51–70 y	1,942	3.11	1.22	1.65	1.91
Standard error		0.05	0.07	0.07	0.06
M, 71+ y	1,255	2.59	1.11	1.45	1.65
Standard error		0.04	0.08	0.07	0.06
F, 9–13 y	1,216	2.47	1.47	1.73	1.87
Standard error		0.04	0.05	0.06	0.06
F, 14–18 y	949	2.33	0.99	1.30	1.49
Standard error		0.06	0.21	0.18	0.15
F, 19–30 y	1,901	2.43	1.23	1.52	1.69
Standard error		0.05	0.21	0.17	0.15
F, 31–50 y	2,939	2.41	1.30	1.58	1.73
Standard error		0.03	0.11	0.09	0.08
F, 51–70 y	2,065	2.17	0.98	1.26	1.42
Standard error		0.03	0.06	0.06	0.05
F, 71+ y	1,368	1.96	0.83	1.09	1.24
Standard error		0.04	0.09	0.08	0.07
Pregnant	346	2.97	1.88	2.18	2.33
Standard error		0.23	0.41	0.41	0.30
Lactating	99	3.63	2.56	2.87	3.03
Standard error		0.22	0.33	0.45	0.46
Pregnant/lactating	440	3.15	1.90	2.23	2.41
Standard error		0.12	0.10	0.11	0.11
All individuals	28,575	2.78	1.09	1.44	1.66
Standard error		0.02	0.04	0.04	0.03
All individuals (+P/L)	29,015	2.79	1.10	1.46	1.68
Standard error		0.02	0.04	0.04	0.04

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.60	0.70	0.90	1.10	1.40	2.10
0.80	1.10	1.60	2.10	2.60	3.20
1.40	1.80	2.30	3.00	3.30	4.30
2.07	2.35	2.65	2.94	3.13	3.50
0.16	0.04	0.14	0.30	0.40	0.61
2.64	3.04	3.48	3.94	4.24	4.87
0.13	0.09	0.10	0.18	0.25	0.41
3.03	3.62	4.28	4.93	5.35	6.21
0.21	0.12	0.16	0.32	0.44	0.72
3.40	3.94	4.54	5.13	5.51	6.28
0.07	0.08	0.09	0.10	0.11	0.13
2.94	3.52	4.18	4.88	5.36	6.38
0.09	0.07	0.09	0.16	0.23	0.39
2.38	2.97	3.68	4.49	5.06	6.33
0.06	0.05	0.06	0.10	0.14	0.26
2.01	2.48	3.04	3.66	4.10	5.07
0.05	0.04	0.05	0.09	0.13	0.23
2.13	2.44	2.77	3.09	3.30	3.72
0.05	0.05	0.06	0.07	0.07	0.06
1.83	2.27	2.75	3.24	3.55	4.17
0.11	0.07	0.12	0.21	0.28	0.43
1.99	2.37	2.81	3.24	3.52	4.14
0.10	0.05	0.10	0.19	0.26	0.46
2.02	2.37	2.76	3.15	3.40	3.94
0.06	0.03	0.05	0.09	0.13	0.21
1.73	2.11	2.55	2.99	3.28	3.87
0.04	0.03	0.04	0.06	0.08	0.13
1.53	1.90	2.32	2.75	3.02	3.58
0.05	0.04	0.05	0.10	0.13	0.21
2.57	2.89	3.30	3.74	4.03	4.60
0.17	0.42	0.45	0.31	0.23	0.25
3.31	3.63	3.95	4.24	4.42	4.75
0.38	0.24	0.27	0.36	0.38	0.33
2.74	3.12	3.54	3.94	4.18	4.67
0.12	0.13	0.13	0.13	0.14	0.15
2.09	2.66	3.34	4.06	4.55	5.59
0.03	0.02	0.03	0.04	0.06	0.10
2.10	2.67	3.34	4.06	4.54	5.55
0.03	0.02	0.03	0.05	0.07	0.11

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

DATA SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), corrected data set (errata submitted to NCHS September 2001). SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.

**TABLE D-19** Mean and Percentiles for Usual Daily Intake of Valine (g), United States, NHANES III (1988–1994)

Sex/Age Category <sup>a</sup>	n	Mean	Percentile		
			1st	5th	10th
Both sexes, 2–6 mo	793	1.04	0.40	0.50	0.60
Both sexes, 7–12 mo	827	1.80	0.50	0.70	0.90
Both sexes, 1–3 y	3,309	2.70	0.60	1.10	1.50
Both sexes, 4–8 y	3,448	3.36	2.08	2.40	2.59
Standard error		0.05	0.60	0.47	0.39
M, 9–13 y	1,219	4.33	2.59	3.04	3.29
Standard error		0.09	0.40	0.33	0.28
M, 14–18 y	909	5.18	2.52	3.15	3.53
Standard error		0.14	0.54	0.46	0.41
M, 19–30 y	1,902	5.63	3.23	3.82	4.16
Standard error		0.11	0.09	0.10	0.10
M, 31–50 y	2,533	5.17	2.57	3.19	3.56
Standard error		0.10	0.25	0.22	0.19
M, 51–70 y	1,942	4.51	1.81	2.42	2.79
Standard error		0.08	0.12	0.10	0.10
M, 71+ y	1,255	3.76	1.59	2.09	2.39
Standard error		0.06	0.11	0.09	0.08
F, 9–13 y	1,216	3.48	2.06	2.42	2.63
Standard error		0.06	0.06	0.06	0.06
F, 14–18 y	949	3.31	1.33	1.80	2.08
Standard error		0.09	0.26	0.21	0.18
F, 19–30 y	1,901	3.47	1.78	2.19	2.42
Standard error		0.07	0.27	0.22	0.19
F, 31–50 y	2,939	3.48	1.91	2.30	2.52
Standard error		0.05	0.21	0.17	0.14
F, 51–70 y	2,065	3.16	1.45	1.86	2.10
Standard error		0.04	0.08	0.07	0.07
F, 71+ y	1,368	2.88	1.25	1.63	1.86
Standard error		0.05	0.16	0.14	0.12
Pregnant	346	4.25	2.75	3.09	3.24
Standard error		0.26	0.53	0.23	0.41
Lactating	99	5.19	3.66	4.10	4.33
Standard error		0.31	0.29	0.33	0.33
Pregnant/lactating	440	4.51	2.71	3.17	3.43
Standard error		0.17	0.14	0.15	0.15
All individuals	28,575	3.98	1.54	2.06	2.39
Standard error		0.03	0.05	0.05	0.05
All individuals (+P/L)	29,015	3.99	1.56	2.08	2.41
Standard error		0.03	0.06	0.05	0.05

<sup>a</sup> M = male, F = female, P/L = pregnant and/or lactating.

NOTE: Data are limited to individuals who provided a complete and reliable 24-hour dietary recall on Day 1. The intake distributions for infants 2–6 and 7–12 months of age and children 1–3 years of age are unadjusted. Means and percentiles for these groups were computed using SAS PROC UNIVARIATE. For all other groups, data were adjusted using the Iowa State University method. Means, standard errors, and percentiles were obtained using C-Side. Standard errors were estimated via jackknife replication. Each standard error has 49 degrees of freedom. Infants and children fed human milk and females who had “blank but applicable” pregnancy and lactating

25th	50th	75th	90th	95th	99th
0.80	0.90	1.20	1.50	1.90	2.90
1.10	1.60	2.20	3.00	3.60	4.40
1.90	2.50	3.30	4.10	4.70	6.30
2.92	3.32	3.75	4.17	4.43	4.96
0.23	0.06	0.20	0.43	0.58	0.89
3.73	4.26	4.85	5.45	5.84	6.65
0.19	0.10	0.18	0.33	0.45	0.74
4.21	5.07	6.02	6.98	7.60	8.85
0.30	0.17	0.23	0.45	0.62	1.02
4.78	5.54	6.37	7.20	7.73	8.79
0.10	0.12	0.13	0.15	0.15	0.19
4.23	5.05	5.96	6.90	7.55	8.95
0.14	0.15	0.14	0.23	0.32	0.53
3.47	4.32	5.32	6.45	7.27	9.14
0.09	0.08	0.09	0.15	0.20	0.39
2.93	3.60	4.41	5.32	5.97	7.41
0.07	0.06	0.07	0.13	0.18	0.33
3.00	3.44	3.91	4.37	4.66	5.24
0.06	0.07	0.07	0.08	0.09	0.10
2.59	3.21	3.92	4.66	5.15	6.18
0.13	0.09	0.14	0.27	0.38	0.67
2.85	3.40	4.01	4.60	4.98	5.82
0.13	0.07	0.13	0.24	0.33	0.59
2.93	3.42	3.97	4.51	4.87	5.63
0.10	0.05	0.08	0.17	0.23	0.40
2.53	3.08	3.70	4.34	4.77	5.67
0.05	0.05	0.05	0.08	0.11	0.17
2.28	2.80	3.40	4.00	4.39	5.17
0.09	0.05	0.08	0.16	0.23	0.36
3.57	4.14	4.83	5.45	5.80	6.53
0.58	0.36	0.80	0.67	0.41	0.32
4.73	5.18	5.64	6.05	6.31	6.79
0.33	0.33	0.35	0.37	0.37	0.37
3.90	4.46	5.06	5.64	6.00	6.72
0.16	0.18	0.19	0.19	0.20	0.22
2.99	3.78	4.75	5.80	6.55	8.19
0.04	0.03	0.04	0.06	0.09	0.15
3.00	3.80	4.77	5.80	6.54	8.15
0.04	0.03	0.04	0.06	0.09	0.17

status data or who responded "I don't know" to questions on pregnancy and lactating status were excluded from all analyses. Females who were both pregnant and lactating were included in both the Pregnant and Lactating categories. The sample sizes for the Pregnant and Lactating categories were very small so their estimates of usual intake distributions are not reliable.

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SOURCE: ENVIRON International Corporation and Iowa State University Department of Statistics, 2001.